

What is Claimed is:

1. A shifting mechanism for electric vehicles mounted on an electric vehicle to couple with a plurality of circuit switches to control switches for positive rotation, reverse rotation, or rotation speed of a vehicle motor, comprising at least:

5 a universal joint fixedly mounted on the electric vehicle;

an operation bar located on the universal joint having a hand grip section on an upper end for users to move the operation bar and a free end on a lower end movable to press or shift one of the circuit switches; and

10 a guiding means fixedly mounted on the electric vehicle for restricting the free end of the operation bar to move reciprocally in a first moving path and a second moving path, the free end being allowed to move in the first moving path to press or shift the rotation speed circuit switch, and in the second moving path to press or shift respectively the positive rotation or reverse rotation circuit switches.

2. The shifting mechanism of claim 1, wherein the first moving path and the second moving path are connected to form a L-shaped or an inverse L-shaped path.

3. The shifting mechanism of claim 1, wherein the first moving path and the second moving path are bridged by a connection path to form a U-shaped or an inverse U-shaped path.

4. The shifting mechanism of claim 1, wherein the first moving path and the second moving path are bridged by a connection path to form a Z-shaped or an inverse Z-shaped path.

5. The shifting mechanism of claim 1, wherein the first moving path and the second moving path are bridged by a connection path to form a N-shaped or an inverse N-shaped path.

6. The shifting mechanism of claim 1, wherein the first moving path and the second moving path are bridged by a connection path to form a H-shaped path.
7. The shifting mechanism of claim 1, wherein the free end of the operation bar presses or shifts the rotation speed circuit switches of the vehicle motor in the sequence of:
- 5 a low speed positive rotation circuit switch to control the low speed positive rotation circuit of the vehicle motor;
- a high speed positive rotation circuit switch to control the high speed positive rotation circuit of the vehicle motor; and
- a low speed reverse rotation circuit switch to control the low speed reverse rotation circuit of the vehicle motor.
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8. The shifting mechanism of claim 1, wherein the guiding means is a plate having a continuous slot to restrict the operation bar to a moving path that includes at least the first moving path and the second moving path.
9. A shifting mechanism for electric vehicles mounted on an electric vehicle to couple
- 15 with a plurality of circuit switches to control switches for positive rotation, reverse rotation, or rotation speed of a vehicle motor, comprising at least:
- an operation bar having a hand grip section on an upper end for users to move the operation bar and a free end on a lower end, moving of the hand grip section causing one of the circuit switches to be pressed or shifted; and
- 20 a guiding means fixedly mounted on the electric vehicle for guiding the free end of the operation bar to move reciprocally in a first moving path and a second moving path, the free end being allowed to move in the first moving path to press or shift the rotation speed circuit switch, and in the second moving path to press or shift respectively the positive rotation or reverse rotation circuit switches.

10. The shifting mechanism of claim 9, wherein the operation bar has a boss.
11. The shifting mechanism of claim 9, wherein the guiding means has a housing trough
on a cross section corresponding to the boss to allow the operation bar to be movably
located in the housing trough such that the operation bar is movable on a straight line
in parallel with a path of the housing trough to allow the free end of the operation bar
to shift between a first switch and a second switch.
12. The shifting mechanism of claim 9, wherein the guiding means is a plate having a
continuous slot to restrict the operation bar to a moving path that includes at least the
first moving path and the second moving path.
13. The shifting mechanism of claim 12, wherein the first moving path and the second
moving path are bridged by a connection path to form a U-shaped or an inverse U-
shaped path.
14. The shifting mechanism of claim 12, wherein the first moving path and the second
moving path are connected to form a L-shaped or an inverse L-shaped path.
15. The shifting mechanism of claim 12, wherein the first moving path and the second
moving path are bridged by a connection path to form a N-shaped or an inverse N-
shaped path.
16. The shifting mechanism of claim 12, wherein the first moving path and the second
moving path are bridged by a connection path to form a Z-shaped or an inverse Z-
shaped path.
17. The shifting mechanism of claim 12, wherein the first moving path and the second
moving path are bridged by a connection path to form a H-shaped path.
18. The shifting mechanism of claim 9, wherein the free end of the operation bar presses
or shifts the rotation speed circuit switches of the vehicle motor in the sequence of:

a low speed positive rotation circuit switch to control the low speed positive rotation circuit of the electric vehicle motor;

a high speed positive rotation circuit switch to control the high speed positive rotation circuit of the electric vehicle motor; and

5 a low speed reverse rotation circuit switch to control the low speed reverse rotation circuit of the electric vehicle motor.

19. A shifting mechanism for electric vehicles mounted on an electric vehicle to couple with a plurality of circuit switches to control switches for power supply transmission or rotation speed of a vehicle motor, comprising at least:

10 an operation bar having a hand grip section on an upper end for users to move the operation bar and a free end on a lower end, moving of the hand grip section causing one of the circuit switches to be pressed or shifted; and

15 a guiding means fixedly mounted on the electric vehicle for guiding the free end of the operation bar to move reciprocally in a first moving path and a second moving path, the free end being allowed to move in the first moving path to press or shift the power supply circuit switch, and in the second moving path to press or shift respectively a positive rotation circuit switch or a reverse rotation circuit switch of the vehicle motor.